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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Kwang-Il Jung

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EXAMINER

MILLER, BRANDON J

ART UNIT

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2617

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/614,330	<b>Applicant(s)</b> JUNG, KWANG-IL	
	<b>Examiner</b> BRANDON J. MILLER	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Response to Amendment***

***Continued Examination Under 37 CFR 1.114***

I. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/18/2008 has been entered and claims 13-23 are pending in the application.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

II. Claims 13-14 and 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 13-14 and 16 describes a modem; what the modem comprises; and how the modem functions within the claimed data transmission system. This subject matter is not

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described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The subject matter first appears in claims 13-14 and 16 of an amendment dated 05/03/2007. However, because the amendment adding this subject matter was over three years after the 07/08/2003 filing date of the application and the term is not recited or suggested anywhere else in the application as filed, the amendment constitutes new matter.

The following art rejection is based on the best possible interpretation of the claim language in light of the rejection under 35 U.S.C. 112, first paragraph.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

III. Claims 14, 16-19 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites “wherein the modem comprises: a radio transmitting system which includes a multi-access system” in lines 1-2. This limitation does not particularly point out and distinctly claim the subject matter which applicant regards as the invention because “the modem” in line 1 is described in claim 13 as being included in the multi-access system. It is unclear how the same modem can be both included in a multi-access system and comprise a transmitting system including a multi-access system. The limitation renders the claim indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 16 recites “wherein the modem comprises: ... a multi-access system between the radio communication terminal and computer” in lines 1-3. This limitation does not particularly point out and distinctly claim the subject matter which applicant regards as the invention because “the modem” in line 1 is described in claim 13 as being included in the multi-access system. It is unclear how the same modem can be both included in a multi-access system and comprise a multi-access system. The limitation renders the claim indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 recites “wherein the multi-access system sends data packets belonging to a same call from the personal computer” in lines 1-2. This limitation does not particularly point out and distinctly claim the subject matter which applicant regards as the invention because it is unclear from the language used what “a same call” refers or corresponds to. The limitation renders the claim indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 recites “a same destination IP address” in lines 2-3. This limitation does not particularly point out and distinctly claim the subject matter which applicant regards as the invention because it is unclear from the language used what “a same destination IP address” refers or corresponds to. The limitation renders the claim indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 recites the limitation “the multimedia system” in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 23 recites “a same call between said one of the computers and multiple ones the radio communication terminals” in lines 7-8. This limitation does not particularly point out and

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distinctly claim the subject matter which applicant regards as the invention because it is unclear from the language used what “a same call” refers or corresponds to. The limitation renders the claim indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following art rejection is based on the best possible interpretation of the claim language in light of the rejections under 35 U.S.C. 112, second paragraph.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1,148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

IV. Claims 13-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agrawal et al. (US 7,139,285) in view of Hartmann (US 2003/0142691 A1).

Regarding claim 13 Agrawal teaches a data transmission system (see col. 2, lines 50-53). Agrawal teaches a slave device; and a multi-access system (see col. 2, lines 54-57 and FIG. 2,

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master modules are co-located on Bluetooth terminal which reads on multi-access system (see col. 3, lines 21-24)). Agrawal teaches the multi-access system coupled to the slave device through a Bluetooth connection (see col. 2, lines 50-58). Agrawal teaches wherein data packets are transmitted between the slave device and the multi-access system through the Bluetooth connection (see col. 2, lines 50-58 & 65-67). Agrawal does not specifically teach that the slave device is a personal computer; the multi-access system including a modem; transmitting data packets between the personal computer and the modem; and the modem transmitting data packets via an air interface for accessing the Internet. Hartmann teaches a device that is a personal computer (see paragraph [0033], data message reads on data packets). Hartmann teaches a modem and transmitting data packets between the personal computer and the modem (see paragraph [0033], data message reads on data packets). Hartmann teaches the modem transmitting data packets via an air interface for accessing the Internet (see paragraph [0033], data message reads on data packets).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Agrawal adapt to include the slave device is a personal computer; the multi-access system including a modem; transmitting data packets between the personal computer and the modem; and the modem transmitting data packets via an air interface for accessing the Internet because: first, the slave device in Agrawal can be a personal computer because a computer can be a slave device and communicate through a Bluetooth connection; second, the multi-access system in Agrawal can include a modem because a modem can facilitate data transmission between the multi-access system and the slave device; third with multi-access system in Agrawal modified to include a modem, the modem can facilitate

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transmission of data packet to another device as mentioned above; and fourth using the modem for transmission of data packets via air interface for accessing the Internet would improve the communication capabilities of Agrawal's multi-access system by allow the multi-access system to transmit and/or receive data packets to/from devices that utilize the Internet to communicate.

Regarding claim 14 the combination of Agrawal and Hartmann teach a device as recited in claim 13 except for the modem comprising a radio transmitting system which includes a multi-access system that allows a plurality of computers to access at least one radio communication terminal. Agrawal does teach a multi-access system comprising a radio transmitting system that allows a plurality of slave devices to access at least one radio communication terminal (see col. 2, lines 50-58). Hartmann does teach a device that is a personal computer (see paragraph [0033], data message reads on data packets). Hartmann does teach a modem and transmitting data packets between the personal computer and the modem (see paragraph [0033], data message reads on data packets). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Agrawal adapt to the modem comprising a radio transmitting system which includes a multi-access system that allows a plurality of computers to access at least one radio communication terminal because: first, the slave device in Agrawal can be a personal computer because a computer can be a slave device and communicate through a Bluetooth connection; and second, the multi-access system in Agrawal can include a modem because a modem can facilitate data transmission between the multi-access system and the slave device.

Regarding claim 15 Agrawal and Hartmann teach a device as recited in claim 13 except for the computer being a laptop computer. Hartmann does teach a computer device (see



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paragraph [0033]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device to include a laptop computer because a laptop computer can function in substantially the same way as the computer in Hartmann.

Regarding claim 16 Agrawal and Hartmann teach a device as recited in claim 13 except for the modem comprising at least one radio communication terminal; and a multi-access system between the radio communication terminal and computer. Agrawal does teach at least one radio communication terminal; and a multi-access system (see col. 2, lines 50-58 and FIG. 2).

Hartmann does teach a modem and computer (see paragraph [0033]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include at least one radio communication terminal; and a multi-access system between the radio communication terminal and computer because: first, the slave device in Agrawal can be a personal computer because a computer can be a slave device and communicate through a Bluetooth connection; and second it would improve the communication capabilities of Agrawal's multi-access system by allow the multi-access system to communicate more efficiently.

Regarding claim 17 Agrawal and Hartmann teach a device as recited in claim 16 except for wherein the multi-access system sends data packets belonging to a same call from the computer for wireless transmission through a plurality of radio communication terminals. Agrawal does teach a multi-access system that sends data packets belonging to a same transmission from slave device for wireless transmission through a plurality of radio communication terminals (see col. 2, lines 50-58). Hartmann teach does a device that is a personal computer (see paragraph [0033], data message reads on data packets). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the

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device adapt to include wherein the multi-access system sends data packets belonging to a same call from the computer for wireless transmission through a plurality of radio communication terminals because computer because: first, the slave device in Agrawal can be a personal computer because a computer can be a slave device and communicate through a Bluetooth connection; and second the data transmitted can be a call.

Regarding claim 18 Hartmann teaches sending data packets based on a same destination IP address and a same data link address, said same data link address corresponding to the personal commuter (see paragraph [0033], mapping protocol reads on a device as claimed).

Regarding claim 19 Agrawal teaches a system for receiving data packets from a plurality of slave devices (see col. 2, lines 50-58 & 65-67). Agrawal teaches a packet-call connection system for interfacing with one or more radio communication terminals (see col. 2, lines 50-58, and FIG. 2, packet connection system reads on packet-call connection system). Agrawal teaches a multi-access routing system for routing data packets from the system to the radio communication terminals according to a slot assignment method (see col. 4, lines 38-49). Agrawal does not specifically teach a plurality of personal computers. Hartmann teach does a device that is a personal computer (see paragraph [0033], data message reads on data packets). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a plurality of personal computers because the slave device in Agrawal can be a personal computer.

Regarding claim 20 Agrawal and Hartmann teach a device as recited in claim 19 except for wherein the slot assignment method is set by the plurality of computers. Agrawal does teach a slot assignment method (see col. 4, lines 38-49). Hartmann does teach mapping protocol that is

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set by computers (see paragraph [0033]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include wherein the slot assignment method is set by the plurality of computers because it would improve the communication capabilities of Agrawal's multi-access system by allow the multi-access system to communicate more efficiently.

Regarding claim 21 Agrawal teaches performing a one-on-one assignment for mapping each of the slave devices to a respective one of the radio communication terminals; and a common sharing method for allowing each slave device to share the plurality of radio communication terminals for transmitting data packets (see col. 3, lines 12-24 & 42-51). Agrawal does not specifically teach the slave devices being a personal computers. Hartmann teach does a device that is a personal computer (see paragraph [0033], data message reads on data packets). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a plurality of personal computers because the slave device in Agrawal can be a personal computer.

Regarding claim 23 Agrawal teaches setting a slot assignment method according to a command of at least one of the slave devices, assigning a slot to one of the devices according to a set slot assignment method (see col. 3, lines 3-11). Agrawal does not specifically teach personal computers setting slot assignments; and routing data packets associated with a same transmission between the one of the computers and multiple ones the radio communication terminals based on the destination address and the data link address associated with each of the packets. Hartmann teach does a device that is a personal computer (see paragraph [0033], data message reads on call data). Hartmann does teach routing data packets associated with a same transmission between

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the one of the computers and the other device terminal based on the destination address and the data link address associated with each of the packets (see paragraph [0033], mapping protocol reads on a device as claimed and data message reads on call data). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include personal computers setting slot assignments; and routing data packets associated with a same transmission between the one of the computers and multiple ones the radio communication terminals based on the destination address and the data link address associated with each of the packets because it would improve the communication capabilities of Agrawal's multi-access system by allow the multi-access system to communicate more efficiently with communication devices that utilize the Internet.

V. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Agrawal et al. (US 7,139,285) in view of Hartmann (US 2003/0142691 A1) and Cousins (US 2001/0029544 A1).

Regarding claim 22 Agrawal and Hartmann teach a device as recited in claim 19 including: Agrawal does teaches a receiving system comprising a plurality of physical data link control circuits provided in one-to-one correspondence with the plurality of slave devices, each of the physical data link control circuits controlling a corresponding physical data link (see col. 4, lines 12-23). Agrawal and Hartmann does not specifically teach a TCP/IP control circuit to perform a TCP/IP protocol function on data packets transmitted from the plurality of physical data link control circuits; a command/response control circuit for performing/responding to a command of the computers transmitted from the TCP/IP control circuit; and a data control circuit

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for sorting and buffering data transmitted from the TCP/IP control circuit. Cousins teaches a TCP/IP control circuit to perform a TCP/IP protocol function on data packets transmitted from a plurality of physical data link control circuits (see paragraphs [0029] - [0033]). Cousins teaches a command/response control circuit for performing/responding to a command of the computers transmitted from the TCP/IP control circuit (see paragraph [[0029] - [0033]). Cousins teaches a data control circuit for sorting and buffering data transmitted from the TCP/IP control circuit [0021]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a TCP/IP control circuit to perform a TCP/IP protocol function on data packets transmitted from the plurality of physical data link control circuits; a command/response control circuit for performing/responding to a command of the computers transmitted from the TCP/IP control circuit; and a data control circuit for sorting and buffering data transmitted from the TCP/IP control circuit because this would allow for data packets to be properly transmitted and received for accessing the Internet.

### ***Response to Arguments***

VI. Applicant's arguments with respect to claims 13-23 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 11/18/2088 regarding the rejection under 35 USC § 112, first paragraph have been fully considered but they are not persuasive.

Applicant has again responded to the 35 USC § 112, first paragraph rejection of claims 13-14 and 16 by suggesting that a verbatim disclosure of all the features recited in a claim is not

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required, as long as after reading the specification one skilled in the art would reasonably concluded that the claimed invention contained those features.

However, the definition for NEW MATTER is about subject matter in amended cases not disclosed in the original application as filed, in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In this case the new subject matter not disclosed in the original application as filed, in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention is the modem; what the modem comprises; and how the modem functions within the claimed data transmission system. Applicant has argued that one skilled in the art would expect that a multi-access communication system to include a modem. However, it is unclear how one skilled in the art would expect that the modem comprised the specific elements described in claims 13-14 and 16 and functioned in the same way within applicant's data transmission system as described in claims 13-14 and 16. If this subject matter applicant now claims regarding the modem could be expected by one skilled in the art it would seem that there would be no reason to claim it in the manner that applicant now has.

The rejection under 35 USC § 112, first paragraph below is deemed proper and the rejection stands.

***Conclusion***

VII. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON J. MILLER whose telephone number is (571)272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brandon J Miller/  
Examiner, Art Unit 2617

February 24, 2009